

Application No.: 10/026,699

Docket No.: 21994-00037-US

REMARKS

The Office Action and prior art relied upon have been carefully considered. In an effort to expedite the prosecution of the present application, claim 1 has been amended to present the claimed invention in more clear terms as required by the Examiner. Claims 2-5 have been cancelled and claims 6-12 have been added.

Original claims 1-5 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The claim has been carefully reviewed and the appropriate modifications have been made so that the claimed method is clearly and comprehensively set forth with corresponding antecedent basis in the specification. Accordingly, further rejection on this ground is not anticipated.

Original claims 1-5 were also rejected under 35 U.S.C. § 112, first paragraph. However, with the present clarified form of claim 1, the critical steps necessary to practice the invention are both stated in the claims and the specification. Accordingly, further rejection under this ground is not anticipated. When considering the claims as compared to the prior art, a number of differences become apparent so that the prior art neither anticipates nor meets the amended claims.

According to the present invention, two ashing steps are carried out with the following conditions. During the first ashing step, an atmosphere is present with oxygen mixed with argon in a volume ratio of 10-90° under gas pressure of 0.1-1.5 Pa. During the second ashing step, the atmosphere includes oxygen under the gas pressure of more than 7 Pa. Accordingly, the ashing steps are carried out in the presence of different atmosphere and gas pressure conditions. None of the references disclose this feature of independent claim 1.

Further, the dependent claims of the present invention define patentable subject matter as compared to the cited prior art.

In claim 6, a difference of the depth of the first depression and the second depression is recited in the range of 30 nm to 60 nm.

In claim 7, the resist layer is defined as having a resistance between 110° c and 130° c.

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In claim 8, the etching steps are defined as being carried out in a CHF_3 atmosphere under the gas pressure of 0.1 to 3.0 Pa.

Claim 9 defines the resist layer as composed of Novolac resin.

Upon review of the cited prior art, it should become evident that none of the references disclose the defined features in the dependent claims.

On page 5, third paragraph, the Examiner questions the data in the specification with respect to Figs. 6-9. The data provided is for Novolac resin as defined in claim 9 for the resist layer. However, this is simply a preferred embodiment and shows an actual example. Clearly, it would be obvious to one of ordinary skill in the art to use other resins for a resist layer, it being understood that Novolac resin, per se, is not the subject matter of the claims.

For the reasons set forth above, applicant believes that the claims presently before the Examiner, namely claims 1 and 6-12 are in condition for allowance.

In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185.

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Respectfully submitted,

By 

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